Flashcards

Date: 21-04-2025

Total Cards: 10

Card 1:

Q: What is the primary goal of the VERTICAL project?

A: To develop a PC-based design and test tool for VTOL/rotorcraft ship Visual Landing Aids (VLAs), enabling desig

Card 2:

Q: How does VERTICAL leverage existing software to achieve its goals?

A: It utilizes Microsoft Flight Simulator 2004 for its visualization engine, providing realistic 3D graphics and physics, a

Card 3:

Q: What are the key components of the VERTICAL prototype?

A: Visualization Module (MS Flight Simulator), VLA Modification Module (Java GUI), VLA Flight Setup & Evaluation

Card 4:

Q: How does the VLA Modification Module enhance the design process?

A: It provides a Java Swing GUI allowing real-time control over individual light properties (state, color, intensity) on t

Card 5:

Q: What advantages does using Microsoft Flight Simulator offer to VERTICAL?

A: It provides detailed 3D graphics, accurate physics, realistic weather conditions, a wide selection of aircraft, and b

Card 6:

Q: How does VERTICAL address the need for realistic ship motion in simulations?

A: While the prototype doesn't yet include ship motion, the developers acknowledge its importance and plan to incor

Card 7:

Q: What are the different field-of-view perspectives available in the VERTICAL prototype?

A: From cockpit (unobstructed and with cockpit view), and from any external spot, allowing flexible observation of th

Card 8:

Q: How does VERTICAL facilitate the evaluation of VLA designs?

A: It leverages MS Flight Simulator's Instant Replay and Flight Video features, allowing users to review and analyze

Card 9:

Q: What hardware requirements are necessary to run the VERTICAL prototype?

A: It runs on standard PCs, with demonstrated success on a 3GHz Pentium-4 with a 256MB OpenGL graphics card

Card 10:

Q: What is the significance of the Movement Tracking Module?

A: It allows integration with movement tracking hardware and head-mounted displays, creating an immersive virtual